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Fibrosis

Data on fibrosis reported by researchers at University of Colorado

2008 APR 14 - (NewsRx.com) -- In this recent report, researchers in the United States conducted a study "To retrospectively evaluate quantitative computed tomographic (CT) indexes, pulmonary function test results, and visual CT scoring as predictors of mortality and to describe serial changes in quantitative CT indexes over 12 months in patients with idiopathic pulmonary fibrosis (IPF). Institutional review board approval and informed consent were obtained at all participating institutions."

"One hundred sixty-seven patients (110 men, 57 women; mean age, 63 years +/- 9 [standard deviation]) with IPF were enrolled in a clinical trial. Patients underwent thin-section CT in the supine position at full inspiration at enrollment (baseline) and at 12-month follow-up. After segmentation of the lungs, mean lung attenuation (MLA), skewness, and kurtosis were measured. Extent of ground glass opacity and lung fibrosis were assessed visually. Forced vital capacity (FVC) and total lung capacity (TLC) were measured. Median duration of follow-up for mortality was 1.5 years. Univariate and multivariate survival analyses were used to determine the predictive value of baseline variables for survival. At univariate analysis, baseline variables predictive of death included TLC, fibrosis, skewness, and kurtosis. At multivariate analysis, FVC ($P = .006$) and fibrosis ($P = .002$) were predictors of short-term mortality. In 95 patients who had both baseline and follow-up CT scans, fibrosis ($P = .030$), MLA ($P = .003$), skewness ($P < .001$), and kurtosis ($P < .001$) all showed change indicating disease progression. Visually determined disease extent on CT images is a strong independent predictor of mortality in IPF," wrote A.C. Best and colleagues, University of Colorado.

The researchers concluded: "Serial evaluation of quantitative CT measures can show disease progression in these patients."

Best and colleagues published their study in *Radiology* (Idiopathic pulmonary fibrosis: Physiologic tests, quantitative CT indexes, and CT visual scores as predictors of mortality. *Radiology*, 2008;246(3):935-940).

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